CLAIMS:

1. A method of embedding a watermark in an information signal, comprising the steps of:

- generating a series of watermark samples representing the watermark;
- dividing the information signal into frames of a given length;
- Fourier transforming the frames into series of coefficients;
- modifying the magnitudes of said coefficients as a function of the watermark samples, while leaving the phase of the coefficients substantially unchanged; and
- inverse transforming the series of modified coefficients into modified signal frames.

2. A method as claimed in claim 1, wherein said modifying step includes multiplicatively adding each watermark sample to the corresponding coefficient.

3. A method as claimed in claim 1, further including the step of weighting the watermark samples using respective weighting factors, said weighting factors being selected in accordance with a given human acoustic model.

4. A method as claimed in any one of claims 1 to 3, further comprising the step of scaling the series of modified coefficients to such an extent that the power of said modified coefficients is substantially equal to the power of the corresponding original coefficients.

5. A method as claimed in claim 1, further comprising the steps of:

- receiving payload data;
- cyclically shifting the series of watermark samples by an amount representing said payload data;

wherein the step of modifying the magnitudes of the coefficients comprises modifying said magnitudes as a function of the shifted watermark samples.

6. A method of detecting a watermark in an information signal, comprising the steps of:

- generating a watermark as a series of watermark samples;
- dividing the information signal samples into frames of a given length;
- Fourier transforming the frames into series of coefficients;
- calculating the magnitude of each coefficient;
- determining the correlation between a series of coefficient magnitudes and the series of watermark samples;
- generating an indication signal if said correlation exceeds a predetermined threshold.

7. A method as claimed in claim 6, further comprising the step of accumulating said correlation for a number of frames prior to the step of generating the indication signal.

8. A method as claimed in claim 6, wherein said step of determining the correlation comprises determining the correlation between the series of coefficient magnitudes and a plurality of series of watermark samples, each series of watermark samples being a cyclically shifted version of a given series of watermark samples by an amount representing payload data; and further comprising the steps of:

- determining the series for which said correlation exceeds a given threshold; and
- decoding the corresponding cyclic shift into payload data.

9. An arrangement for embedding a watermark in an information signal, comprising:

- means for generating a series of watermark samples representing the watermark;
- means for dividing the information signal into frames of a given length;
- means for Fourier transforming the frames into series of coefficients;
- means for modifying the magnitudes of said coefficients as a function of the watermark samples, while leaving the phase of the coefficients substantially unchanged; and
- means for inverse transforming the series of modified coefficients into modified signal frames.

10. An arrangement for detecting a watermark in an information signal, comprising:

- means for generating a watermark as a series of watermark samples;
- means for dividing the information signal samples into frames of a given length;

- means for Fourier transforming the frames into series of coefficients;
- means for calculating the magnitude of each coefficient;
- means for determining the correlation between a series of coefficient magnitudes and the series of watermark samples;
- means for generating an indication signal if said correlation exceeds a predetermined threshold.

11. An information signal having an embedded watermark, characterized in that the information signal has been divided into frames of a given length, the magnitudes of the Fourier coefficients of the series have been modified as a function of a watermark while leaving the phase of the coefficients substantially unchanged, and the series of modified coefficients have been inverse transformed into modified signal frames.

12. A storage medium having recorded thereon an information signal as claimed in claim 11.